

JC685 U.S. PTO  
09/08/00PTO  
09/08/00UTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. 197111US2SRD

First Inventor or Application Identifier Hirofumi MURATANI

Title CODE GENERATING METHOD AND UNIT THEREOF, CODE DETECTING METHOD AND UNIT THEREOF, AND WATERMARK EMBEDDING UNIT AND WATERMARK DETECTING UNIT

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents

1.  Fee Transmittal Form (e.g. PTO/SB/17)  
(Submit an original and a duplicate for fee processing)

2.  Specification

Total Pages

114

3.  Drawing(s) (35 U.S.C. 113)

Total Sheets

26  
(Formals)4.  Oath or Declaration

Total Pages

2

a.  Newly executed (original)b.  Copy from a prior application (37 C.F.R. §1.63(d))  
(for continuation/divisional) with box 15 completedi.  DELETION OF INVENTOR(S)Signed statement attached deleting inventor(s) named  
in the prior application, see 37 C.F.R. §1.63(d)(2) and  
1.33(b).5.  Incorporation By Reference (usable if box 4B is checked)  
The entire disclosure of the prior application, from which a copy of the  
oath or declaration is supplied under Box 4B, is considered to be part  
of the disclosure of the accompanying application and is hereby  
incorporated by reference therein.

## 15. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below:

 Continuation    Divisional    Continuation-in-part (CIP) of prior application no.:

Prior application information: Examiner: Group Art Unit:

## 16. Amend the specification by inserting before the first line the sentence:

 This application is a  Continuation  Division  Continuation-in-part (CIP)  
of application Serial No. Filed on This application claims priority of provisional application Serial No. Filed

## 17. CORRESPONDENCE ADDRESS



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Signature:		Date:	9/8/00
Name:	C. Irvin McClelland Registration Number 21,124	Registration No.:	

Docket No. 197111US2SRD

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S) Hirofumi MURATANI

SERIAL NO: New Application

FILING DATE: Herewith

FOR: CODE GENERATING METHOD AND UNIT THEREOF, CODE DETECTING METHOD AND UNIT THEREOF, AND WATERMARK EMBEDDING UNIT AND WATERMARK DETECTING UNIT

FEE TRANSMITTAL

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

JC619 U.S. PRO  
09/658565  
09/08/00  


FOR	NUMBER FILED	NUMBER EXTRA	RATE	CALCULATIONS
TOTAL CLAIMS	32 - 20 =	12	× \$18 =	\$216.00
INDEPENDENT CLAIMS	10 - 3 =	7	× \$78 =	\$546.00
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIMS (If applicable)			+ \$260 =	\$0.00
<input type="checkbox"/> LATE FILING OF DECLARATION			+ \$130 =	\$0.00
			BASIC FEE	\$690.00
			TOTAL OF ABOVE CALCULATIONS	\$1,452.00
<input type="checkbox"/> REDUCTION BY 50% FOR FILING BY SMALL ENTITY				\$0.00
<input type="checkbox"/> FILING IN NON-ENGLISH LANGUAGE			+ \$130 =	\$0.00
<input checked="" type="checkbox"/> RECORDATION OF ASSIGNMENT			+ \$40 =	\$40.00
			TOTAL	\$1,492.00

Please charge Deposit Account No. 15-0030 in the amount of A duplicate copy of this sheet is enclosed.

A check in the amount of **\$1,492.00** to cover the filing fee is enclosed.

The Commissioner is hereby authorized to charge any additional fees which may be required for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to Deposit Account No. 15-0030.  
A duplicate copy of this sheet is enclosed.

Respectfully Submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Marvin J. Spivak

Registration No. 24,913

  
C. Irvin McClelland  
Registration Number 21,124

Date: 9/8/00



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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Hirofumi MURATANI

SERIAL NO.: New Application

FILED: Herewith

FOR: CODE GENERATING METHOD AND UNIT THEREOF, CODE DETECTING METHOD AND UNIT THEREOF, AND WATERMARK EMBEDDING UNIT AND WATERMARK DETECTING UNIT

**STATEMENT OF RELEVANCY****Reference AA (5,664,018) on Form PTO-1449:**

This patent shows a correlation based watermarking method and its robustness against a collusion attack.

**Reference AB (5,915,027) on Form PTO-1449:**

This patent shows a spread spectrum watermarking method.

**Reference AM (2000-3129) on Form PTO-1449:**

This patent disclosure shows collusion-resilient watermarking devices that use a coding method of user ID's based on the Chinese Remainder theorem. However, it does not exhibit any concrete embodiment of watermarking device which is effective even for the case of more than two colluders.

**Reference AN (9-191394) on Form PTO-1449:**

This patent disclosure shows a spread spectrum watermarking method.

**Reference AO (11-288217) on Form PTO-1449:**

This patent disclosure shows an improvement of the Boneh-Shaw's method. The code length is reduced. However, it is effective only for two or less colluders.

**References AP on Form PTO-1449:**

This reference shows an improvement of the Boneh-Shaw's method. The code length is reduced, however, it is effective only for two or less colluders.

**References AQ on Form PTO-1449:**

This reference shows coding methods that are robust against the collusion attack. However, the code lengths are fairly huge.

**References AR on Form PTO-1449:**

This reference shows an improvement of the Boneh-Shaw's method. The code length is reduced for the case of small number of users, however, it still has large code length for the case of large number of users.

**References AS on Form PTO-1449:**

This reference shows coding methods that are robust against the collusion attack. However, it is effective only by combination with a spread spectrum watermarking method.

**References AT on Form PTO-1449:**

This reference shows a concept of fingerprinting of digital data.

**References AU on Form PTO-1449:**

This reference points out the problem of collusion attack in the fingerprinting.

**References AV on Form PTO-1449:**

This reference shows a spread spectrum watermarking method and its application to fingerprinting.

**References AW on Form PTO-1449:**

This reference shows the collusion-resilient watermarking method that use a coding method of user ID's based on the Chinese Remainder Theorem. Furthermore, it shows its effectiveness.

**References AX on Form PTO-1449:**

This reference shows a practical limit of the collusion resilient spread spectrum watermarking methods.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**



IN RE APPLICATION OF: Hirofumi MURATANI  
SERIAL NO: NEW APPLICATION  
FILED: HEREWITH  
FOR: CODE GENERATING METHOD AND UNIT THEREOF, CODE DETECTING METHOD AND UNIT THEREOF, AND WATERMARK EMBEDDING UNIT AND WATERMARK DETECTING UNIT

GAU:  
EXAMINER:

**REQUEST FOR PRIORITY**

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

- Full benefit of the filing date of U.S. Application Serial Number, filed, is claimed pursuant to the provisions of 35 U.S.C. §120.
- Full benefit of the filing date of U.S. Provisional Application Serial Number, filed, is claimed pursuant to the provisions of 35 U.S.C. §119(e).
- Applicants claim any right to priority from any earlier filed applications to which they may be entitled pursuant to the provisions of 35 U.S.C. §119, as noted below.

In the matter of the above-identified application for patent, notice is hereby given that the applicants claim as priority:

<b>COUNTRY</b>	<b>APPLICATION NUMBER</b>	<b>MONTH/DAY/YEAR</b>
Japan	11-280652	September 30, 1999
Japan	2000-016285	January 25, 2000
Japan	2000-263871	August 31, 2000

Certified copies of the corresponding Convention Application(s)

- are submitted herewith
- will be submitted prior to payment of the Final Fee
- were filed in prior application Serial No. filed
- were submitted to the International Bureau in PCT Application Number .  
Receipt of the certified copies by the International Bureau in a timely manner under PCT Rule 17.1(a) has been acknowledged as evidenced by the attached PCT/IB/304.
- (A) Application Serial No.(s) were filed in prior application Serial No. filed ; and
- (B) Application Serial No.(s)
  - are submitted herewith
  - will be submitted prior to payment of the Final Fee

Respectfully Submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Marvin J. Spivak  
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